

REMARKS

The claims have been amended in order to more completely describe and distinctly claim the invention and to overcome the various grounds of rejection set forth in the Official Letter. The claims have been amended to limit the "fluorocarbon additive" to one which is non-reactive (chemically) with the thermosettable or thermoset resin. Support for the limitation may be found throughout the specification, particularly in the second paragraph of page 7 wherein it is stated that the additive is one that does not affect the "basic bulk chemical properties of the thermoset resin". Inasmuch as no new matter is embodied by the proposed amendments, entry thereof is respectfully requested.

The rejection of the claims under 35 USC 102 over as being completely anticipated or, in the alternative, under 35 USC 103 as obviously unpatentable over Yonek et al is believed to be obviated by the above amendment. At page 3 of the Official Letter, the Examiner states:

"---Yonek et al. (abstract; col. 15-16, claim 1, 8, 14) disclose a crosslinkable thermosetting resin comprising 0.05 to 7 weight percent of fluorine containing additive. Regarding the fluorine-containing additive, Yonek et al. (col. 1, line 5-12) disclose that the additive is a fluorine-containing polyisocyanate. According to applicants' specification (page 9, third paragraph), applicants define oils, gums and greases that are polymeric in nature. Therefore, in view of applicants' definition of what is considered as oil, gum, grease, the examiner has a reasonable basis to believe that the claimed fluorocarbon additive is inherently possessed in Yonek et al. where Yonek et al. clearly disclose a fluorine-containing polymeric additive that can be in oil, gum, or grease form. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980---."

The Examiner's characterization of Yonek et al is correct as far as it goes; however, the Examiner failed to also note that the fluorine-containing additives disclosed by Yonek et al are "crosslinkers" for the thermoset polymers with which they are admixed. See Col. 1, ll.

7-12 and col. 2, ll. 12-15. Thus, in the system disclosed by Yonek et al, the fluorine containing additive, upon chemical reaction with the other components of the resin forming mixture, becomes an integral structural component of the resin molecule. In the claimed invention, on the other hand, the fluorine-containing additive does not chemically react with the resin formers, but rather, forms a physical admixture therewith. Thus, according to the claimed invention, the fluorine-containing additive leaves unaffected the chemical properties of the components with which it is physically admixed but acts to alter the surface physical properties of the ultimate thermoset resin

There can be no argument with the proposition that the disclosure of a mixture of a thermosettable resin and an additive that is chemically reactive therewith is not anticipatory, under 35 USC 102, of a mixture of a thermoset resin and an additive that is non-chemically reactive therewith.

Nor, under the guidelines set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) for establishing obviousness under 35 USC 103, is the chemically reactive system disclosed by Yonek et al suggestive of the physical mixture set forth in the claims. The claims have been amended to limit the fluorine-containing additives to those that are not chemically reactive with the thermoset resin or the components that are reactive to produce the thermoset resin. Since, a cross-linking chemical reaction of the fluorine-containing additive with the thermoset resin is a critical and necessary feature of the Yonek et al disclosure, the physical admixture presently claimed of the fluorine-containing additive and the thermoset resin wherein no chemical reaction takes place there between is contraindicated by Yonek et al.

Applicants seek to modify the surface properties of thermoset resin articles and materials while leaving the bulk chemical properties thereof substantially unaffected. To accomplish this, applicants physically admix certain fluorine-containing oils, greases or gums

with the thermoset resin. These additives do not chemically react with the thermoset resin, but rather, physically migrate throughout the thermoset resin such that a gradient of concentration of the additive throughout a cross-section of the resin is achieved

Yonek et al are concerned with a totally different proposition, i.e., achieving a chemical reaction (crosslinking) between the fluorine-containing additive and the thermoset resin to produce a product that differs molecularly and in chemical properties from the original thermoset resin. Since the reference and applicants are concerned with two distinct and completely unrelated problems and since the respective solutions to these problems are also totally distinct and unrelated, one cannot be said to be suggestive of the other within the meaning of 35 USC 103.

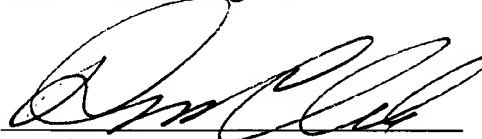
It is well settled that the prior art itself must suggest the problem sought to be solved by the claimed invention before it can be said to suggest or disclose its solution. In re Shaffer, 108 USPQ 326; In re Aufhauser, 158 USPQ 351; US v. Adams 148 USPQ 479; In re Nomiya, 184 USPQ 607. Since the Examiner has not demonstrated that Yonek et al is concerned with the same problem faced by applicants, i.e., modifying the surface properties of a thermoset resin article while leaving the bulk chemical properties thereof unaffected, the Examiner has not demonstrated obviousness of the claimed invention over Yonek et al within the meaning of 35 USC 102. Moreover, it is clear that the Examiner has not shouldered the burden imposed by *Graham v. John Deere Co* to establish *prima facie* obviousness of the invention over Yonek et al. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Appln. No. 09/978,302
Office Action dated March 8, 2004

The indication by the Examiner that claims 4,5,12,13,15,19,20, 26 and 27 are allowable is gratefully acknowledged. By the above, applicants have earnestly endeavored to place the remainder of the application in condition for allowance and an early action to that end is respectfully requested.

Respectfully submitted,

Miles & Stockbridge P.C.

A handwritten signature in black ink, appearing to read 'Dennis P. Clarke', written over a horizontal line.

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